UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,252	12/30/2003	Chan Ho Kyung	2101-3-20	3891

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/751,252	KYUNG ET AL.
	Examiner	Art Unit	
	Frank Duong	2616	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 December 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7 and 10-29</u> is/are rejected.

7)☒ Claim(s) <u>8 and 9</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 December 2003</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is a response to communications dated 12/30/03. Claims 1-29 are pending in the application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Information Disclosure Statement

4. The information disclosure statement filed 02/08/05 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

Claim Objections

5. Claim 28 is objected to because of the following informalities:

    Line 1, the first occurrence of "The method" should be changed to --A method--.

    The acronyms "MNC" and "IMSN" are required to be spelled out.

    Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6.   Regarding claims 16-20, there is no support for the claimed limitation of *"receiving a second value which identifies **whether** the MNC is greater than the fixed length, **wherein if** the network supports the MNC greater than the fixed length, **then** the second value is equal to a first logic level to indicate that a third value **will be sent** from the network,"* in the specification. In the specification, specifically on page 11, paragraph [0042], this limitation is briefly summarized. However, it is not fully disclosed. In accordance with the specification, on page 14, I paragraph [0065], a feature of *"field IMSI_10 indicates a digit value at IMSI of MNC inserted in ESPM, A41SPM, or MCRRPM"* is disclosed. From the disclosed feature, the claimed limitation of *"receiving a second value which identifies **whether** the MNC is greater than the fixed length, **wherein if** the network supports the MNC greater than the fixed length, **then** the second value is equal to a first logic level to indicate that a third value **will be sent** from the network"* cannot unambiguously derive to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

As per claims 16-20, the claims commonly recite the limitation of "*receiving a*

*second value which identifies **whether** the MNC is greater than the fixed length,*

***wherein if** the network supports the MNC greater than the fixed length, **then** the*

*second value is equal to a first logic level to indicate that a third value **will be sent** from*

the network." This limitation is deemed to be indefinite because it fails to positively

recite the limitation. It is unclear who or what is doing the second "receiving." The term

"MNC greater than the fixed length" is vague because it recites an open range limitation.

The "if" and "then" condition nested in the "wherein" clause is rather confusing. It is

unclear what preceding limitation it modifies. The term "*a first logic level to indicate that*

a third value will be sent from the network" is rather vague. Will the "third value" be sent

at all? Because indicating something will be sent does not involve the "sending

process" itself. Thus, for the aforementioned rationales, this limitation is not understood

without resort to speculation. Presently, speculation and conjecture must be utilized by

Examiner and by the artisan inasmuch as the claims as presented don not definitely

reflect what the disclosed invention is. Note *In re Steele, 305 F.2d 859, 862, 134 USPQ*

292, 295 (CCPA 1962). Note also *In re Wilson, 424, F.2d 1382, 1385, 165 USPQ 494,*

496 (CCPA 1970).

(*Note: Due to the above problems, there is no art applied to determine the allowability of claims*

16-20 at this time)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-7, 10-15 and 21-29 are rejected under 35 U.S.C. 102(b) as being

anticipated by Chandnani et al (USP 6,445,929) (hereinafter "Chandanani")

Regarding **claim 1,** in accordance with Chandnani reference entirety, Chandnani

discloses a method of communicating a variable length mobile network code (MNC)

from a mobile communications network to a mobile station (*Note: the preamble is not*

given any patentable weight because it does not breath any life and meaning to the

body of the claim), the method comprising:

transmitting a message (*IMSI number*) comprising *at least one of* a first field

(*IMSI_ADDR_NUM*) *and* a second field *(IMSI_11_12 or (IMSI_CLASS and*

IMSI_CLAS_X_TYPE)), wherein the first field (*IMSI_ADDR_NUM*) indicates whether the

MNC is greater than a fixed length (<15) (*col. 5, lines 26-67*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales

discussed above), Chandnani also discloses wherein the first field further indicates

whether the second field is included in the message (IMSI) (*col. 6, lines 1-25*).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales

discussed above), Chandnani also discloses wherein when the network supports the

MNC greater than the fixed length, the first field is set to a first logic level (not zero) to indicate that the second field is included (*col. 6, line 56 to col. 7, line 3*).

Regarding **claim 4**, in addition to features recited in base claim 1 (see rationales discussed above), Chandnani also discloses wherein when the network supports the MNC not greater than the fixed length, the first field is set to a second logic level (0) to indicate that the second field is not included (*col. 5, lines 58-59*).

Regarding **claim 5**, in addition to features recited in base claim 1 (see rationales discussed above), Chandnani also discloses, wherein the second field comprises a first part of the MNC (*IMSI_11_12 is discussed at col. 5, line 9 and thereinafter*).

Regarding **claim 6**, in addition to features recited in base claim 5 (see rationales discussed above), Chandnani also discloses wherein the first part comprises a least significant digit of the MNC (*Note: This limitation is inherent part of the E.212 disclosed at col. 5, line 51 and thereinafter*).

Regarding **claim 7**, in addition to features recited in base claim 6 (see rationales discussed above), Chandnani also discloses wherein most significant digits of the MNC are transmitted to the mobile station in a third field (*IMSI_11_12 disclosed at col. 5, lines 52-53 and thereinafter is corresponding to this limitation*).

Regarding **claim 10**, in addition to features recited in base claim 6 (see rationales discussed above), Chandnani also discloses wherein the message is sent over at least one of a paging channel and a broadcast control channel (BCCH) (*col. 5, lines 6-12*) (Note: *this limitation is also inherent in a CDMA system for it is common to transmit control information in either a paging or a broadcast control channel*).

Regarding **claim 11**, in addition to features recited in base claim 10 (see

rationales discussed above), Chandnani also discloses wherein the message is an

extended system parameters message (ESPM) (*claimed message is corresponding to*

the standard message discussed at col. 2, lines 29-38 or col. 9, lines 4-27).

Regarding **claim 12**, in addition to features recited in base claim 10 (see

rationales discussed above), Chandnani also discloses wherein the message is an

ANSI-41 system parameters message (A41SPM) (*claimed message is corresponding to*

the standard message discussed at col. 2, lines 29-38 or col. 9, lines 4-27).

Regarding **claim 13** in addition to features recited in base claim 10 (see

rationales discussed above), Chandnani also discloses wherein the message is a MC-

RR parameters message (MCRRPM) (*claimed message is corresponding to the*

standard message discussed at col. 2, lines 29-38 or col. 9, lines 4-27).

Regarding **claim 14** in addition to features recited in base claim 5 (see rationales

discussed above), Chandnani also discloses wherein value of the first part is

determined based on an association between a decimal value and a binary value (*col.*

6, line 65 to col. 7, line 3 and thereinafter or Fig. 4).

Regarding **claim 15** in addition to features recited in base claim 14 (see

rationales discussed above), Chandnani also discloses wherein the binary value

comprises 4 bits (*this limitation is inherently read on by the 2/3 digits nature of the*

mobile network code and as disclosed on col. 5, lines 13 and thereinafter).

Regarding **claim 21**, in accordance with Chandnani reference entirety,

Chandnani discloses a method of communicating a variable length mobile network code

(MNC) from a mobile station to a mobile communications network, the method comprising: transmitting a message comprising a first field (*IMSI_ADDR_NUM*), wherein the first field indicates whether the MNC is greater than a fixed length (*col. 5, lines 26-67*).

Regarding **claim 22**, in addition to features recited in base claim 21 (see rationales discussed above), Chandnani also discloses wherein when the MNC is greater than the fixed length, the first field is set to a first logic level (*col. 5, lines 58-60*).

Regarding **claim 23**, in addition to features recited in base claim 21 (see rationales discussed above), Chandnani also discloses wherein when the MNC not greater than the fixed length, the first field is set to a second logic level (*col. 5, lines 58-60*).

As per **claims 24-26**, in addition to features recited in base claim 21 (see rationales discussed above), the claimed message is corresponding to the standard message discussed at col. 2, lines 29-38 and thereinafter.

As per **claim 27**, in addition to features recited in base claim 21 (see rationales discussed above), the claimed limitation is corresponding to Chandnani's IMSI having MCC, IMSI_11_12, IMSI_S and IMSI_ADDRSS_NUM discussed at col. 5, lines 26-60 and thereinafter.

Regarding **claim 28**, in accordance with Chandnani reference entirety, Chandnani teaches a method of extracting an MNC from IMSI identifying a mobile station, the method comprising:

determining whether the MNC is greater than a fixed length based on a value of

an indicator field included in a message transmitted from the mobile station (*col. 5, lines*

26-51);

reading first most significant digits of MNC from a first field of the IMSI

(*IMSI_ADDR_NUM is discussed at col. 5, line 56 and thereinafter*);

reading least most significant digit of MNC from a most significant position of a

second field of the IMSI, when the indicator field is set (*IMSI_11_12 is discussed at col.*

5, lines 52-54 and thereinafter); and

calculating the MNC based on values in the first and second fields of the IMSI

(col. 5, lines 60-67 and thereinafter).

Regarding **claim 29**, in addition to features recited in base claim 28 (see

rationales discussed above), Chandnani also discloses wherein the calculating

comprises converting most significant digits of MNC from decimal to binary (*Fig. 4;*

block 180 and the accompanied description begins at col. 6, line 66 to col. 7, line 3 and

thereinafter).

Allowable Subject Matter

9. Claims 8-9 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, considered individually or in combination, fails to fairly show or

suggest the claimed invention of base claim 1 and further limit with novel and unobvious

limitation of "*wherein upon receiving the second field and the*

third field, the mobile terminal determines a first value of MNC supported by

the network and compares the first value of MNC with a second value of MNC

stored in the mobile terminal, wherein if the first value is different from the

second value then the mobile terminal is roaming," structurally and functionally

interconnected with other limitations in a manner as recited in the objected dependent

claims.

Conclusion

11. The prior/related art made of record and not relied upon is considered pertinent to

applicant's disclosure.

    Katsuragawa (USP 6,339,588).

    Kyung et al (USP 7,079,834).

    GSM Europe, Technical Assessments of Two Case Scenarios for the

Introduction of 3 Digit MNCs, downloadable from the Internet, pages 1-11, July 2001.

12. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Frank Duong whose telephone number is 571-272-

3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FRANK DUONG
PRIMARY EXAMINER

July 16, 2007